

REMARKS

The present application was filed on September 25, 2003 with claims 1 through 25. Claims 1 through 25 are presently pending. Claims 1, 11, and 21 are proposed to be amended, new claims 26-28 are proposed to be added, and claims 2, 12, and 22 are proposed to be cancelled, without prejudice, herein.

In the Office Action, the Examiner rejected claims 1-25 under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. (European Patent Number EP 1 096 729 A1) in view of Izumi et al. (European Patent Number EP 0 964 534).

Independent Claims 1, 11 and 21

Independent claims 1, 11, and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. in view of Izumi et al. Regarding claims 1 and 11, the Examiner acknowledges that Johnson fails to explicitly show progressively reducing said retransmission data rate to at least one of two or more lower transmission data rates, but asserts that Izumi disclose this limitation (col. 4, lines 36-38 (paragraph [0023])).

Applicants note that independent claims 1, 11, and 21 have been amended to require reducing a retransmission rate only for a current frame when an acknowledgement is not received for said current frame, wherein said reduced retransmission data rate is progressively reduced to at least one of two or more lower retransmission data rates if an acknowledgement is not received for a current frame after *n* attempts of transmission at said transmission data rate, wherein a second lower retransmission data rate is selected if an acknowledgement is not received for a current frame after *m* attempts of retransmission at a first lower retransmission data rate, wherein *m* equals a maximum number of attempts parameter corresponding to said first lower retransmission data rate, wherein *m* and *n* are integers, and wherein *m* and *n* are greater than one. Support for this amendment can be found in FIGS. 4 and 5 and the associated text of the originally filed disclosure. Neither Johnson nor Izumi disclose or suggest wherein said reduced retransmission data rate is progressively reduced to at least one of two or more lower retransmission data rates if an acknowledgement is not received for a current frame after *n* attempts of transmission at said transmission data rate, wherein a second lower retransmission data rate is selected if an acknowledgement is not received for a current frame after *m* attempts of transmission at a first lower retransmission data rate, wherein *m* equals a maximum number

of attempts parameter corresponding to said first lower retransmission data rate, wherein m and n are integers, and wherein m and n are greater than one.

Thus, even as combined in the manner suggested by the Examiner, Johnson and Izumi, alone or in combination, *do not teach every element of the independent claims.*

Furthermore, based on the KSR considerations discussed hereinafter, the combination/modification suggested by the Examiner is not appropriate.

KSR Considerations

An Examiner must establish “an apparent reason to combine ... known elements.” *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007). Here, the Examiner merely states that it would have been obvious to combine the teaching of Izumi with Johnson for the benefit of improving the reliability with which data is received.

Applicant is claiming a new technique for wireless communication wherein retransmission rate is reduced only for a current frame when an acknowledgement is not received for a current frame, wherein the reduced retransmission data rate is progressively reduced to at least one of two or more lower retransmission data rates if an acknowledgement is not received for a current frame *after n attempts of transmission at the transmission data rate, wherein a second lower retransmission data rate is selected if an acknowledgement is not received for the current frame after m attempts of transmission at a first lower retransmission data rate, wherein m equals a maximum number of attempts parameter corresponding to said first lower retransmission data rate, wherein m and n are integers, and wherein m and n are greater than one.*

There is no suggestion in Johnson or in Izumi, alone or in combination, of selecting a second lower retransmission data rate if an acknowledgement is not received for a current frame *after m attempts of transmission at a first retransmission data rate, wherein m equals a maximum number of attempts parameter corresponding to said first lower retransmission data rate, wherein m and n are integers, and wherein m and n are greater than one.*

Izumi’s teaching to attempt a single retransmission at each reduced data rate (see FIG. 3) *teaches away* from the present invention. The KSR Court discussed in some detail *United States v. Adams*, 383 U.S. 39 (1966), stating in part that in that case, “[t]he Court relied

upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” (KSR Opinion at p. 12). Thus, there is no reason to make the asserted combination/modification.

Thus, Johnson and Izumi, alone or in combination, do not disclose or suggest
5 reducing a retransmission rate only for a current frame when an acknowledgement is not received for said current frame, wherein said reduced retransmission data rate is progressively reduced to at least one of two or more lower retransmission data rates if an acknowledgement is not received for a current frame after n attempts of transmission at said transmission data rate, wherein a second lower retransmission data rate is selected if an acknowledgement is not
10 received for a current frame after m attempts of retransmission at a first lower retransmission data rate, wherein m equals a maximum number of attempts parameter corresponding to said first lower retransmission data rate, wherein m and n are integers, and wherein m and n are greater than one, as required by independent claims 1, 11, and 21, as amended.

New Dependent Claims 26-28

15 New claims 26-28 have been added to more particularly point out and distinctly claim various features of the invention, consistent with the scope of the originally filed specification, in order to give applicant the protection to which he is entitled. No new matter is introduced. Support for this material is set forth in FIG. 5 and the associated text of the originally filed specification. In particular, new claims 26-28 require wherein said rate selection
20 mechanism selects one of said lower retransmission data rate based on the robustness of a corresponding modulation technique.

Thus, Johnson and Izumi, alone or in combination, do not disclose or suggest wherein said rate selection mechanism selects one of said lower retransmission data rate based on the robustness of a corresponding modulation technique, as required by new dependent
25 claims 26-28.

Dependent Claims 2-10, 12-20 and 22-25

Dependent claims 2-10, 12-20, and 22-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. in view of Izumi et al.

Claims 3-10 and 26, claims 13-20 and 27, and claims 23-25 and 28 are dependent
30 on claims 1, 11, and 21, respectively, and are therefore patentably distinguished over Johnson

and Izumi, alone or in combination, because of their dependency from amended independent claims 1, 11, and 21 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. Claims 2, 12, and 22 are proposed to be cancelled, without prejudice, herein.

5 All of the pending claims following entry of the amendments, i.e., claims 1, 3-11, 13-21, and 23-28, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

10 The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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